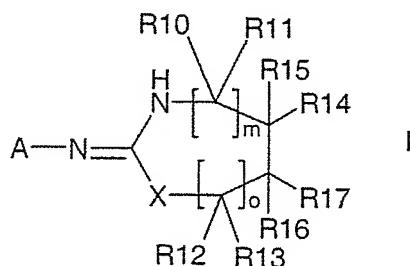


AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions including the claims in the application.

Listing of the Claims:

1. (Currently Amended) A process for preparing heterocycles of formula I



wherein:

X is sulfur, oxygen or NR₅

wherein R₅ is hydrogen or (C₁-C₄)alkyl;

m and o are each independently zero, 1 or 2;

A is either a) phenyl, naphthyl or heteroaryl, each of which is optionally substituted by 1, 2, 3, 4 or 5 R₁₁ radicals

wherein R₁₁ is, in each case, independently selected from the group consisting of (C₁-C₄)alkyl, F, Cl, Br, I, CN, NO₂, OH, O(C₁-C₄)alkyl, and COO(C₁-C₄)alkyl, and some or all of the hydrogen atoms of the alkyl radicals may be replaced by fluorine atoms;

or b) selected from (C₁-C₄)alkyl, (C₂-C₅)alkenyl, (C₂-C₅)alkynyl, (C₃-C₈)cycloalkyl, and (C₄-C₈)cycloalkenyl radicals

wherein said radicals may each independently be substituted by (C₁-C₄)alkyl or (C₃-C₆)cycloalkyl, and

wherein some or all of the hydrogen atoms of the alkyl, alkenyl, alkynyl, cycloalkyl and cycloalkenyl radicals may be replaced by fluorine atoms;

R₁₄, R₁₅, R₁₆ and R₁₇

are each independently selected from hydrogen, F and (C₁-C₄)alkyl,

wherein some or all of the hydrogen atoms of the alkyl radicals may be replaced by

fluorine atoms;

or

R14 and R16 together are a bond, and

R15 and R17, together with the two carbon atoms to which they are bonded, form an aromatic six-membered carbocycle, in which one or two carbon atoms may be replaced by nitrogen, or a thiophene ring,

wherein the aromatic six-membered carbocycle and the thiophene ring is optionally substituted by 1, 2, 3 or 4 R7 radicals,

wherein R7 is, in each case, independently selected from the group consisting of (C1-C4)alkyl, F, Cl, Br, I, CN, NO₂, OH, O(C1-C4)alkyl and COO(C1-C4)alkyl, and some or all of the hydrogen atoms of the alkyl radicals may be replaced by fluorine atoms;

or

R14 and R16 are each independently hydrogen or (C1-C4)alkyl,

wherein some or all of the hydrogen atoms of the alkyl radicals may be replaced by fluorine atoms;

and

R15 and R17, together with the two carbon atoms to which they are bonded, form a saturated 5-, 6-, 7- or 8-membered carbocycle in which one or two carbon atoms may each independently be replaced by O, S, NH or N(C1-C4)alkyl and may be substituted by 1, 2, 3, 4, 5 or 6 R8 radicals

wherein R8 is, in each case, independently selected from the group consisting of (C1-C4)alkyl, O(C1-C4)alkyl, and COO(C1-C4)alkyl, and some or all of the hydrogen atoms of the alkyl radicals may be replaced by fluorine atoms;

R10, R11, R12 and R13

are each independently hydrogen, F or (C1-C4)alkyl,

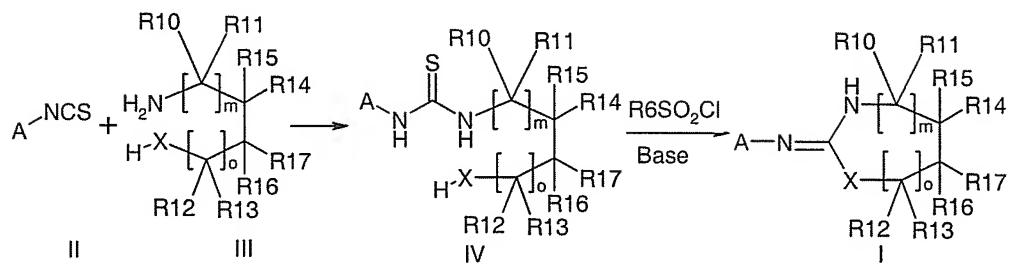
wherein some or all of the hydrogen atoms of the alkyl radicals may be replaced by fluorine atoms;

wherein, either (i) A is an aromatic ring system, or (ii) the ring formed from R15 and R17 is an aromatic system and m is zero, or (iii) each of A and the ring formed from R15 and R17 is an aromatic ring system;

and their tautomers and their salts;

provided, however, that compounds in which A is unsubstituted phenyl or (C1-C4)alkyl; and X is oxygen; and R14 and R15 are each independently hydrogen, (C1-C4)alkyl or benzyl; and R16 and R17 are each hydrogen; and m and o are each zero are excluded;

which process comprises, as shown in scheme 1,



Scheme 1

- a) reacting an isothiocyanate of formula II with a primary amine of formula III to give a thiourea of formula IV, and
- b) converting the thiourea of formula IV, using a sulfonyl chloride R₆SO₂Cl in the presence of a base, to said compound of formula I,

where, in the compounds of the formulae II, III and IV,

A, X, n, m and R₁₀ to R₁₇ are each as defined in formula I and

R₆ is (C₁-C₄)alkyl, trifluoromethyl or phenyl which is unsubstituted or substituted by methyl, trifluoromethyl, F, Cl, Br or a polymeric support.

2. (Original) The process of claim 1, in which the reaction is carried out as a one-pot reaction.

3. (Original) The process of claim 1, wherein steps a) and b) are each independently conducted continuously or batchwise.

4. (Cancelled)

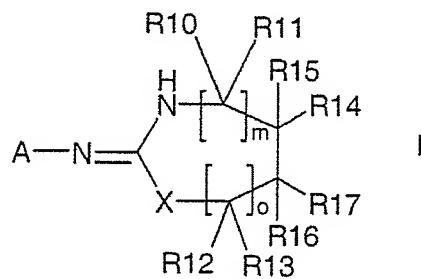
5. (Original) The process of claim 1, wherein X is NR₅.

6. (Original) The process of claim 1, wherein A is phenyl, thienyl or isoxazolyl, each of which may be substituted as specified in claim 1.

7. (Original) The process of claim 1, wherein R₆ is phenyl or p-methylphenyl.

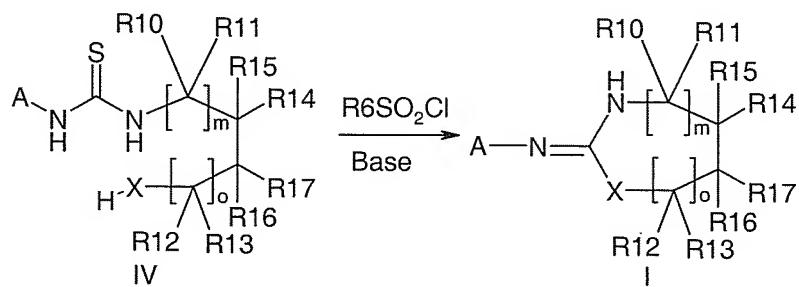
8. (Original) The process of claim 1, wherein the base used in step b) is sodium hydroxide or potassium hydroxide.

9. (Currently Amended) A process for preparing a compound of the formula I as defined in claim 1



which comprises

converting a thiourea of the formula IV to a compound of formula I using a sulfonyl chloride R₆SO₂Cl in the presence of a base



wherein

A, X, o, m, R₆ and R₁₀ to R₁₇ are each as defined in claim 1.